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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,171

Applicant(s)

AAMODT ET AL.

Examiner

Blaine Basom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-61 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 20-61 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

The Examiner acknowledges the Applicants' amendment to claim 27, and the cancellation of claims 1-19. Regarding the previous Office Action, the Applicants note that each of the independent claims express either displaying data or a graphical indicator based on a display signal or some other data comparison, and assert that the prior art presented by the Examiner to teach such a feature has been improperly combined. The Applicants particularly assert that combining Hayashi (U.S. Patent No. 5,918,238) with Wiese (U.S. Patent No. 5,918,238) results in a printing process that is repugnant to that which is generally known, and that there would be no advantage to replacing the cell coloring taught by Hayashi with the graphical symbols taught by Wiese. Based on this, the Applicants conclude that one would not have been motivated to combine Wiese and Hayashi, as asserted in the previous Office Action. The Examiner, however, respectfully disagrees with such a conclusion.

In arguing that that combining Hayashi with Wiese results in a printing process that is repugnant to that which is generally known, the Applicants note that Hayashi is directed to adding emphasis to a document, and note that modifying Hayashi by the teachings of Wiese produces documents in which the underlying data is changed before they are printed. The Applicants assert that they "have never heard of a printing process in which the underlying data is actually modified, as apposed to just colored, before it is printed." In response, the Examiner notes that the described embodiment of Hayashi is not directed to merely a printing process, in which the only data displayed to the user is in hard copy form, i.e. printed on paper. The embodiment of Hayashi, in fact, appears more directed to a word processor (for example, see

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column 1, lines 9-14), in which the user is presented with a document displayed on a computer display, and whereby the user may dynamically interact with the document, for example, to highlight appropriate sections or cells in an attempt to better understand the underlying data. Hayashi discloses that the document is maintained via an electronic file that conforms to the Rich Text Format (for example, see column 3, line 54 – column 4, line 9), which is a well-known file format used by word processors to store and display documents. Additionally, Hayashi discloses that an interface may be provided for the user to modify the document, and particularly the coloring and emphasis of specific document sections, according to his or her personal tastes (for example, see column 9, lines 45-62). Since the described embodiment of Hayashi is directed towards processing an electronic file, and not strictly a printing process, it is inconsequential as to whether or not the Applicants have heard of a printing process in which the underlying data is actually modified. Regardless, the Examiner contends that replacing data within a cell with an appropriate symbol is consistent with the teachings of Hayashi, as the data is still represented in the cell, and since replacing various data elements with appropriate symbols still emphasizes sections of the document. Replacing a data element within a cell with an appropriate graphical symbol, although changing the visual appearance of the document, does not necessarily result in a loss of data. The value of the data is still represented in the table, specifically by the symbol, and if the user is required to know the exact value of the data, it is understood that he or she may simply select the symbol (for example see figure 2, in addition to column 3, lines 40-55 of Wiese), or adjust the table such that any emphasis is removed (see column 9, lines 45-62 of Hayashi). Additionally, it is understood that replacing data elements satisfying various user-specified conditions with the symbols of Hayashi would add emphasis to the document, similarly

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to coloring those elements. The Examiner thus maintains that modifying Hayashi by Wiese is not repugnant to the teachings of Hayashi.

The Applicants argue that that there would be no advantage to replacing the cell coloring taught by Hayashi with the graphical symbols taught by Wiese, because both Hayashi's coloring and Wiese's graphical symbols visually shown trends in data. While both the cell coloring of Hayashi and the graphical symbols of Wiese do show trends in data, the Examiner notes that the graphical symbols of Wiese do provide certain advantages over the cell coloring taught by Hayashi. For example, by replacing the data with graphical symbols, the user is not overwhelmed with a long list of numbers. Also, Wiese demonstrates that graphical symbols each potentially occupy less display space than a corresponding number, and thus more information can be displayed via symbols. It is additionally understood that in circumstances wherein the actual numbers are not important, but instead the relative values between the numbers are, or in circumstances wherein the actual numbers are not as important as whether or not the numbers exist in various discrete ranges, such as the real estate values taught by Wiese, graphical symbols may be more effective than cell coloring in showing trends in the data. Consequently, the Examiner maintains that one skilled in the art would have been motivated to combine Hayashi and Wiese, and that therefore, Hayashi and Wiese have been properly combined.

The Applicants' arguments filed 7/7/2004 have thus been fully considered, but are not persuasive. In addition, the Examiner presents the teachings the Project Gateway 5 system, which as shown below, teaches graphical indicators like recited in the claimed invention. This reference is not required in response to the Applicants' arguments or amendments, but is

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introduced to further show that the claimed limitations are taught in that art, and to therefore advance prosecution of the present Application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 26, there is no antecedent basis for “the data” within the phrase, “converting the graphical indicator conditions into condition structures that define a relationship between the data, the graphical indicator conditions, and the corresponding graphical indicators.” As each of claims 27-37 depends on claim 26, and include all of the limitations of claim 26, each of claims 27-37 is rejected for the reasons in which claim 26 is rejected. Regarding claim 38, there is no antecedent basis for “the data” within the phrase, “converting the graphical indicator conditions into condition structures that define a relationship between the data, the graphical indicator conditions, and the corresponding graphical indicators.” As each of claims 39-50 depends on claim 38, and include all of the limitations of claim 38, each of claims 39-50 is rejected for the reasons in which claim 38 is rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-30, 34-41, and 45-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,918,238, which is attributed to Hayashi, and also over U.S. Patent No. 6,323,885, which is attribute to Wiese. In general, Hayashi presents a computer-implemented system for converting a monochrome document into a colored document, whereby specifically, parts of the document are colored according to content displayed in the document (see column 2, lines 1-9). Hayashi particularly teaches that such a system may be applied to a table in order to color cells of the table according to the values of data within the cells (see column 3, lines 55-65).

Specifically regarding claim 20, Hayashi describes a user interface for generating a condition structure, referred to as a “cell value-color correspondence table” (see column 9, lines 45-62). This cell value-color correspondence table is generated in response to receiving graphical indicator conditions (see column 9, lines 45-62), and defines a relationship between table data, graphical indicator conditions, and corresponding graphical indicators (see column 5, line 50 – column 6, line 31). The graphical indicators described by Hayashi correspond to image data, namely the color of the cells and the color of the data within the cells of the table (for example, see column 9, lines 11-25). Thus the user interface of Hayashi is used for generating a condition structure in response to receiving graphical indicator conditions, the condition structure

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defining a relationship between data, graphical indicator conditions, and corresponding graphical indicators. Additionally, Hayashi describes a graphical indicator engine, comprised of a “cell value comparison component” and a “color specification control word insertion component,” the cell value comparison component being responsive to the graphical indicator conditions in the cell value-color correspondence table for comparing data in each cell of the table to the graphical indicator conditions, and the color specification control word insertion component being operable to output a display signal in response to the graphical indicator condition matching the data (see column 7, line 39 – column 8, line 9). Since the method of Hayashi is implemented on a computer, and since almost all computers comprise some sort of cache, it is understood that such a display signal may be placed in a cache to provide an indication of whether to display graphical indicators for a particular table. In response to this display signal, a display presents the table with each cell of the table colored according to the display signal (for example, see column 9, lines 11-25). As the graphical indicator described by Hayashi corresponds to the color of the data and table cells, the data remains in each cell and is colored according to the cell value-color correspondence table. Thus Hayashi does not teach displaying only *one* of the data and the graphical indicator based on the display signal, as is recited in claim 20.

Like Hayashi, Wiese discusses the textual display of data, particularly data regarding real estate values (see column 1, lines 9-21). Regarding the claimed invention, Wiese teaches indicating such data with colors corresponding to the value of the data, and also, replacing the textual data with a graphical indicator, specifically a symbol, which corresponds to the value of the data (see column 1, lines 34-42; and column 3, lines 11-21).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Hayashi and Wiese before him at the time the invention was made, to modify the graphical indicators taught by Hayashi, such that they comprise symbols which are displayed in place of the data, as is done by Wiese. It would have been advantageous to one of ordinary skill to utilize such a combination, because the addition of such symbols may be used to depict more general or more specific trends in the table data, as is taught by Wiese (for example, see column 9, lines 22-39).

In regard to claim 21, Hayashi discloses that the user may input numeric values indicating tables to be processed, whereby in response, the cells of these tables are graphically indicated according to the cell value-color correspondence table described above (see column 10, line 60 – column 11, line 17). Thus the display of Hayashi and Wiese is understood to comprise memory storage for storing these numeric values, which determine the cells, and more specifically the tables, that are capable of supporting the display of graphical indicators.

As per claim 22, Hayashi discloses that a “cell value-color correspondence table holding component” stores the cell value-color correspondence table, which as described above, is a condition structure (see column 7, lines 39-44; and column 5, line 50 – column 6, line 31). This cell value-color correspondence table particularly comprises an “IdxB” and an “IdxF” column (for example, see the cell value-color correspondence table in figure 2). For each graphical indicator condition, these columns store an index that refers to a color table specifying graphical indicators, particularly colors, by which to display table cells and data satisfying the associated graphical indicator condition (see column 6, lines 8-31; and column 4, lines 19-37). The indexes in the IdxB and IdxF columns are thus considered graphical indicator IDs, and consequently, the

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graphical indicator engine of Hayashi and Wiese is considered to comprise memory storage for storing this cell value-color correspondence table which includes these graphical indicator IDs.

As per claim 23, Hayashi discloses that the graphical indicator conditions maintained by the cell value-color correspondence table are validated, specifically, each color specified in the cell value-color correspondence table is validated to determine if it is equal to predefined color data (for example, see column 6, lines 61-65). Thus the user interface of Hayashi and Wiese is used for generating a condition structure in response to receiving graphical indicator conditions, the condition structure defining a relationship between data, graphical indicator conditions, and corresponding graphical indicators, and also for validating image data by determining if each color in the cell value-color correspondence table is equal to a pre-defined color.

With respect to claims 24 and 25, the combination of Hayashi and Wiese teaches validating graphical indicator conditions, as is described above. As particularly shown in the previous paragraph, image data within a cell value-color correspondence table is validated by determining if it is a predefined image. Hayashi further discloses that, via a user interface, the user may enter or change the graphical indicator conditions and data within the cell value-color correspondence table (see column 9, lines 45-62). It is understood that, for this table to be processed, relevant data must be entered into the table. In other words, the user is limited as to the conditions and data entered into the table. Thus it is understood that the test data and value data are necessarily validated to determine if they are predefined operations and legitimate data, respectively.

Referring to claim 26, the above-described system of Hayashi and Wiese teaches: obtaining graphical indicator conditions that determine when to display graphical indicators;

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validating test data by determining if the test data equals a pre-defined operation, validating value data by determining if the value data is a legitimate field name or data, and validating image data by determining if the image data is equal to pre-defined image data; converting the graphical indicator conditions into a cell value-color correspondence table that defines a relationship between cell data, graphical indicator conditions, and corresponding graphical indicators; comparing table cell data to the graphical indicator conditions retrieved from the cell value-color correspondence table to determine if there is a match; and displaying the graphical indicators depending on the outcome of this comparison between the data and the graphical indicator conditions, as is described above in the rejections for claims 20 and 24. Hayashi further teaches obtaining a display signal, which is used to specify tables to apply the above-described teachings, and which is thus used to determine when to display graphical indicators (see column 10, line 60 – column 11, line 17). As these teachings are implemented on a computer, which necessarily comprises a computer-readable medium, Hayashi and Wiese are considered to describe a computer-readable medium, like that recited in claim 26.

As per claim 27, Hayashi discloses that any existing graphical indicator conditions may be displayed as text, so that the user can understand the graphical indicator conditions (see column 11, line 39 – column 12, line 11). This is particularly done by determining if any condition structures exist by checking memory storage, and converting these existing condition structures into graphical indicator text (see column 11, line 39-column 12, line 11).

Additionally, Hayashi discloses that the user may have the option of changing these graphical indicator conditions (see column 9, lines 45-62). This is done by displaying graphical indicator conditions from which the user can choose (see column 9, lines 45-62). The user modifies the

existing graphical indicator conditions by choosing from these graphical indicator conditions, which consequently also modifies the existing graphical indicator condition text. Lastly, the user may request an option to set these modified graphical indicator conditions either temporarily or permanently (see column 9, lines 45-62). The above-described combination of Hayashi and Wiese is thus considered to describe a computer-readable medium like recited in claim 27.

Concerning claim 28, Hayashi discloses that the table cell data is compared to the graphical indicator conditions in a particular order, rather than at random (for example, see column 7, lines 25-61). Thus some cell data is chosen for comparison before other cell data. Consequently, the table cell data of Hayashi and Wiese is considered to be compared to the graphical indicator conditions in a prioritized order.

With respect to claim 29 and 30, Hayashi describes a display signal which is input by the user, and which indicates whether graphical indicators are to be displayed for a particular table (see column 10, line 59 – column 11, line 17). The computer memory storing this display signal is considered a cache, like that recited in claims 29 and 30. Hayashi and Wiese thus teach filling a cache with this display signal that indicates whether to display a graphical indicator, determining if there are fields to test whether to display the graphical indicators, and for each field, displaying either the data or the graphical indicator based on the display signal. Upon the user inputting such a display signal indicting a table in which to place graphical indicators, it is understood that, if a corresponding signal already exists in memory, the memory is updated to reflect the new user-inputted signal, and if the signal does not pre-exist in memory, the display signal is stored in memory, or in other words, a cache is created. Hayashi and Wiese thus also teach determining if the cache exists, creating the cache if the cache does not exist, and filling

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the cache with the display signal indicating whether or not graphical indicators should be displayed in the fields.

Regarding claims 34-35, the combination of Hayashi and Wiese teaches validating graphical indicator conditions, as is described above in the rejection for claim 26. As particularly shown in the rejection for claim 1, image data within a cell value-color correspondence table is validated by determining if it is a predefined image. Hayashi further discloses that the user may enter or change the graphical indicator conditions and data within the cell value-color correspondence table (see column 9, lines 45-62). It is understood that, for this table to be processed, and for the graphical indicators to be displayed accordingly, relevant data must be entered into the cell value-color correspondence table. In other words, the user is limited as to the conditions and data entered into the table, and therefore, for the graphical indicators to be displayed appropriately, it is understood that the test data and value data entered into this table are necessarily validated to ensure that they are predefined operations and legitimate data, respectively. Accordingly, it is interpreted that an error message is displayed if an error is found in the graphical indicator conditions.

With respect to claim 36, Hayashi discloses that a “cell value-color correspondence table holding component” stores the cell value-color correspondence table, which as described above, is a condition structure (see column 7, lines 39-44; and column 5, line 50 – column 6, line 31). This cell value-color correspondence table particularly comprises an “IdxB” and an “IdxF” column (for example, see the cell value-color correspondence table in figure 2). For each graphical indicator condition, these columns store an index that refers to a color table specifying graphical indicators, particularly colors, by which to display table cells and data satisfying the

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associated graphical indicator condition (see column 6, lines 8-31; and column 4, lines 19-37).

The indexes in the IdxB and IdxF columns are thus considered graphical indicator IDs, and consequently, the computer-readable medium of Hayashi and Wiese is understood to store a cell value-color correspondence table, i.e. condition structure, having these graphical indicator IDs, which are used to determine the graphical indicators to be displayed.

As per claim 37, Wiese discloses that by moving a cursor over a graphical indicator, a pop-up appears which displays the data represented by the graphical indicator (see column 3, lines 43-51). Hayashi and Wiese thus teach displaying the data when hovering over the graphical indicators.

Each of the features recited in claim 38 is similarly recited in claims 26 and 29. Consequently, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 38, particularly for the reasons stated above in the rejections for claims 26 and 29.

Each of the features recited in claim 39 is similarly recited in claim 27. Consequently, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 39, particularly because of the reasons stated above in the rejection for claim 27.

Each of the features recited in claim 40 is similarly recited in claim 28. Consequently, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 40, particularly because of the reasons stated above in the rejection for claim 28.

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Each of the features recited in claim 41 is similarly recited in claim 30. Consequently, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 41, particularly for the reasons stated above in the rejection for claim 30.

Each of the features recited in claims 45 and 46 is similarly recited in claim 26. Consequently, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claims 45 and 46, because of the reasons stated above in the rejection for claim 26.

Each of the features recited in claim 47 is similarly recited in claim 34. Consequently, and because of the reasons stated above in the rejection for claim 34, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 47.

Each of the features recited in claim 48 is similarly recited in claim 35. Consequently, and because of the reasons stated above in the rejection for claim 35, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 48.

Each of the features recited in claim 49 is similarly recited in claim 36. Because of the reasons stated above in the rejection for claim 36, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 49.

Each of the features recited in claim 50 is similarly recited in claim 37. Because of the reasons stated above in the rejection for claim 37, the above-described combination of Hayashi and Wiese is considered to teach a computer-readable medium like that described in claim 50.

Concerning claim 51, Hayashi teaches receiving from a user an indication of a condition, which indicates a cell value, and a corresponding graphical indicator, which indicates a color by which to emphasize data satisfying the condition (for example, see column 9, lines 45-62). Accordingly, Hayashi teaches determining whether data satisfies the condition, and when a data value satisfies the condition, outputting the graphical indicator to facilitate a viewer in recognizing the condition (for example, see column 7, line 25 – column 8, line 9). As described above, Wiese further teaches displaying a graphical indicator, specifically a graphical symbol, instead of the data. It is understood that the data by which such teachings may be applied is arbitrary, and may therefore comprise project information like recited in the claimed invention. The above-described combination of Hayashi and Wiese is consequently considered to teach a method, like that recited in claim 51, which is for presenting project information of a project.

As per claim 52, Hayashi teaches receiving from the user multiple condition and graphical indicator pairs (see column 9, lines 45-62; column 5, line 50 – column 6, line 31; and figure 2), whereby it is understood that each of these pairs is implemented to determine whether a data value satisfies a condition, and to output the corresponding graphical indicator if the data value satisfies a condition (for example, see column 7, line 25 – column 8, line 9). Wiese, as described above, teaches that such a graphical indicator may be a symbol, which replaces the corresponding data. The above-described combination of Hayashi and Wiese are thus considered to teach a method like that recited in claim 52.

Concerning claim 53, Hayashi discloses that the table cell data is compared to the graphical indicator conditions in a particular order, rather than at random (for example, see column 7, lines 25-61). Thus some cell data is chosen for comparison before other cell data.

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Consequently, Hayashi and Wiese are considered to teach determining, in a prioritized order, whether a data value satisfies a condition, and outputting a corresponding graphical indicator if the data value satisfies a condition, as is expressed in claim 53.

Regarding claim 54, Hayashi teaches that if a data value satisfies a graphical indicator condition, then as is described above, the data value is emphasized by a corresponding graphical indicator. As further described above, Wiese teaches that such emphasis may comprise replacing the data value with the graphical indicator, specifically a graphical symbol. If a data value does not satisfy a graphical indicator condition, Hayashi demonstrates that the data value is not emphasized by a corresponding graphical indicator (for example, see figures 6(a) and 6(b), and their associated descriptions in column 9, lines 10-27). The data value is displayed, however. Consequently, the above-described combination of Hayashi and Wiese is considered to teach outputting the data value when it is determined that the data value does not satisfy a graphical indicator condition.

As per claims 55 and 57, Hayashi discloses that the user may indicate an exemplary graphical indicator, namely a color, and an exemplary condition via a user interface understood to provide pre-defined tests for use in a condition (for example, see column 9, lines 45-62). Wiese, as described above, teaches that such graphical indicators may comprise graphical symbols that replace the data. An exemplary graphical indicator is understood to necessarily be pre-defined, like recited in claim 55.

With respect to claim 56, it is understood that the data by which the teachings of Hayashi and Wiese is applied is arbitrary, and may therefore comprise project information like recited in

the claimed invention. Accordingly, it is understood that the data values may correspond to attributes of a project.

As per claim 61, Wiese discloses that by moving a cursor over a graphical indicator, a pop-up appears which displays the data represented by the graphical indicator (see column 3, lines 43-51). Hayashi and Wiese thus teach, when a user selects a graphical indicator, outputting the corresponding data value.

Claims 31-33, 42-44, and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hayashi and Wiese, which is described above, and also over U.S. Patent No. 6,349,315, which is attributed to Sonoyama et al. (and hereafter referred to as "Sonoyama"). As described above, Hayashi and Wiese describe a computer-readable medium like that recited in claims 29 and 38, whereby graphical indicator conditions are stored; a user is allowed to add more graphical indicator conditions; the data values within the cells of a table are compared to these graphical indicator conditions to find a matching graphical indicator ID; this matching graphical indicator ID is retrieved; and a graphical indicator associated with this matching graphical indicator ID is displayed. This combination, however, does not explicitly teach associating graphical indicator conditions, and corresponding graphical indicators, with particular data fields. Neither Hayashi nor Wiese, therefore, explicitly teach determining if a field, i.e. cell, is a task field or resource field by obtaining a field type; obtaining the task type of the task field or the resource type of the resource field; and determining the graphical indicator conditions for the task type or resource type, as is recited in claims 31 and 42.

Like Hayashi and Wiese, Sonoyama presents a system whereby each cell of a spreadsheet is graphically indicated based on the value of the data within the cell (for example, see column 1, line 65 – column 2, line 14). Regarding the claimed invention, Sonoyama teaches that graphical indicator conditions may correspond to particular columns or rows of the spreadsheet, such that the cells of only that particular column or row are graphically indicated according to the graphical indicator conditions (for example, see column 4, line 63 – column 5, line 29). Thus for a single spreadsheet, there may exist multiple groups of graphical indicator conditions, each group corresponding to a different color or row of the spreadsheet (for example, see column 4, line 63 – column 5, line 29). Consequently, it is understood that for each cell, there is an inherent determination of the cell type, i.e. column or row in which the cell is located, so that the corresponding graphical indicator conditions may be properly obtained and applied to the cell.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Hayashi, Wiese, and Sonoyama before him at the time the invention was made, to modify the tables taught by Hayashi and Wiese, such that multiple groups of graphical indicator conditions may exist per table, each group corresponding to a particular column or row, as is done by Sonoyama. It would have been advantageous to one of ordinary skill to utilize such a combination, because the provision of graphical indicator conditions per column or row of the table allows the user to view particular trends in the data of that column or row, without affecting the entire table, as is demonstrated by Sonoyama. Thus with this combination of Hayashi, Wiese, and Sonoyama, the type of cell in the table is determined, as well as the corresponding graphical indicator conditions for the type of cell, in order to graphically indicate the cells of the table according to the data within the cells. It is understood that such tables can comprise a wide

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variety of data types, as known in the art. Consequently, it is interpreted that the types of cells in the table could be task types and resource types, and more specifically, project summary task types, summary task types, nonsummary task types, summary resource types, and nonsummary resource types, like those recited in the claims 31, 32, 42 and 43, and it is understood that particular graphical conditions may be associated with each of these types, like expressed in claims 33 and 44.

Specifically referring to claims 58-60, Hayashi, Wiese, and Sonoyama, as described above, teach that graphical indicator conditions may be generated and applied to specific, user-selected data within a table. Hayashi further teaches providing a user interface by which the user may specify such graphical indicator conditions and corresponding graphical indicators. It is understood that the data by which such teaching may be applied is arbitrary, and may therefore comprise project summary data or nonsummary data, like recited in claims 58 and 59.

Consequently, Hayashi, Wiese, and Sonoyama are considered to teach that the indication of a condition and graphical indicator may be received via a user interface through which the user can specify whether the condition applies to summary or nonsummary data, and wherein the summary data includes project summary data. Since Hayashi further demonstrates that the graphical indicator conditions may be applied to multiple rows or columns of data within a table, it is understood that the graphical indicator conditions may apply to both summary and nonsummary data. In such circumstances it is understood that, via the user interface, the user may indicate a condition that applies to both summary and nonsummary data, or in other words, indicate that the summary data inherits the condition of the nonsummary data.

Claims 20, 26, 38, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over the "Project Gateway 5" system (hereafter referred to as "Project Gateway"), as is described by the "Project Gateway 5 Repository User Manual" (which is hereafter referred to as "the User Manual"), and also over the U.S. Patent of Hayashi, which is described above. In general, Project Gateway is a network-based system for building and maintaining project information, such as schedules, deliverables, and task assignments, and for facilitating access to this information (for example, see page 1 of the User Manual). Project Gateway may particularly be used to generate and maintain a "project dashboard" – a spreadsheet denoting project information, such as status information for one or more projects (for example, see page 89 of the User Manual). The project dashboard has multiple columns, including columns for "Time," "Effort," "Progress," and "Issues," which comprise specific graphical indicators corresponding to the data within the column (see pages 90 and 91 of the User Manual). Particularly, there exists a plurality of pre-defined relationships between the data, specified conditions of the data, and the graphical indicators (as defined, for example, on pages 90 and 91). There exists, in other words, various condition structures like recited in the claimed invention. It is understood that the computer implementing Project Gateway compares the data in the Time, Effort, Progress, and Issues columns to conditions in their corresponding condition structures in order to determine what graphical indicators to display in the various fields of the columns. It is further understood that the results of this comparison, a signal indicating what graphical indicator to display in each field, may be stored in a cache so that the comparisons for each data field does not have to be performed every time the Project Dashboard is displayed, as is known in the art. The User

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Manual, however, doesn't explicitly disclose that the user may implement such graphical indicators in other columns of the Project Dashboard, nor does the Manual disclose that Project Gateway comprises a user interface by which the user may generate condition structures, as is recited in claims 20, 26, 38, and 51. Additionally, the Manual does not disclose that the graphical indicator conditions obtained from the user are validated, as is recited in claim 26. The graphical indicators in the Project Dashboard replace the data in the columns with which they are associated, such that no data is placed in the columns; the graphical indicator conditions are structured such that each possible data value corresponds to a graphical indicator. Thus the User Manual does not disclose that, for that for each data field in the Project Dashboard, a graphical indicator *or* text data is displayed based on the comparison of the data in the field to the graphical indicator conditions, as is expressed in claims 20, 26, 38, and 51.

Like the Project Dashboard, Hayashi describes a spreadsheet having a plurality of cells, whereas described above, one or more cells in the spreadsheet may comprise a graphical indicator. Hayashi particularly teaches that a user interface may be provided such that the user may generate condition structures, whereby it is understood that the data input by the user is necessarily validated in order for the graphical indicators to appropriately be placed in the spreadsheet, as is described above. Additionally, Hayashi teaches that if the data of a cell does not satisfy any corresponding graphical indicator conditions, then the data is placed in the cell, but with no graphical indicator (for example, see figure 6(b)).

It would have been obvious to one of ordinary skill in the art, having the teachings of Project Gateway and Hayashi before him at the time the invention was made, to modify the Project Dashboard in the Project Gateway system, such that the user may enter graphical

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indicator conditions, which are validated, and such that data which does not satisfy these conditions is still displayed in the dashboard, but with no graphical indicator, as taught by Hayashi. It would have been advantageous to one of ordinary skill to utilize this combination because the provision of graphical indicators corresponding to user-defined graphical indicator conditions emphasizes spreadsheet data of interest to the user, as is demonstrated by Hayashi. This resulting Project Dashboard would thus be more desirable to the user, as the user is able to quickly determine data which satisfies various conditions.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

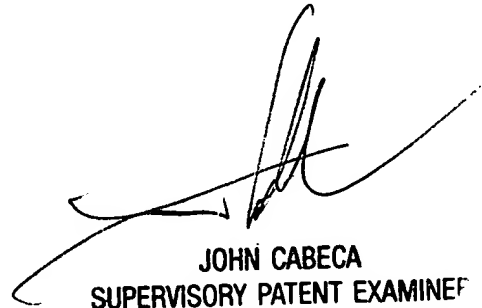
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (571) 272-4044. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btb



JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100